

## OC PLANNING - Master Plan and **Local Storm Drain General Notes**

County of Orange

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- 1. All concrete in reinforced structures must attain 3250 PSI strength in 28 days. Type of Portland cement concrete to be determined by OC Public Works Materials Lab.
- 2. All pipe lengths are horizontal projections unless otherwise shown.
- 3. Shoring for trench excavations shall be provided to satisfy State of California safety requirements.
- 4. Pipe construction in fill area must be coordinated with the grading to insure that when the fill operation has been completed at grade, there is a minimum two (2) feet of fill above the top of the pipe.
- 5. All work must be in conformance with the current OC Public Works Standard Plans and Standard Specifications, which must be kept on the job site at all times.
- 6. The contractor must notify OC Public Works inspector at least two (2) working days prior to any construction by telephoning (714) 567-7804, or by writing OC Public Works, Attention: Construction, P.O. Box 486, Santa Ana, California, 92702.
- 7. All fills must be compacted to 90% relative compaction as determined by the California Test Method 216, and ASTM Test Method 1557, "Five Layer Method". All backfill must be free of vegetable matter.
- 8. All surveying required for vertical and horizontal alignment must be provided by the contactor or developer, and sufficient reference staking must be in accordance with the request of the OC Public Works inspector.
- 9. All RCP shall be installed per OC Public Works Standard Plan 1319 "RCP-Bedding Detail".
- 10. Contractor shall notify OC Public Works Materials Lab (714) 567-7844, 48 hours prior to "D" load of testing of RCP for verification of results.
- 11. Prior to placement of storm drain improvements, the developer's soil engineering consultant shall certify, in writing, to the OC Public Works inspector, that the storm drain sub-grades are of adequate strength to support the structures and any anticipated loads.
- 12. Prior to the commencement of construction, the developer's contractor shall obtain a permit from the State Division of Industrial Safety, a copy of the permit shall be kept on the job site at all times.
- 13. All steel that is to be continuous shall be lapped a minimum of 45 bar diameters.

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- 14. All materials testing for the drainage facilities shall be provided by the developer or contractor in accordance with the number, location and frequency requested by the OC Public Works inspector.
- 15. Chamfer all exposed edges of concrete ¾" minimum.
- 16. Any Encroachment Permit is required from OC Public Works for any construction in public right-of-way.
- 17. Length of manhole structures may be increased to meet pipe ends at option of the contractor as long as reinforcing steel is continued as required. Any change in spur location must be approved by the engineer.
- 18. Body of manhole structure, including spur, must be poured in one continuous operation, except that construction joint at the spring line with a longitudinal keyway is permitted.
- 19. All reinforcing bars must be securely held in place in the forms. Two-way mat of reinforcing steel must be wired together both ways at alternate intersections.
- 20. Storm drain backfill for all facilities within street right-of-way is to be placed and compacted under OC Public Works Inspection and meet or exceed OC Public Works minimum standards.
- 21. For RCP under 24 inches in diameter, joints shall be made by filling the outer annular space of the joint with mortar. For RCP 24 inches or greater in diameter, both the inner and outer annular spaces of the joint shall be filled to the full depth of the mortar.
- 22. RCP shall comply with all ASTM applicable standards.
- 23. Working within Orange County Flood Control Facilities is restricted to the period of April  $15^{th}$  through October  $15^{th}$ .
- 24. All catch basins and local depressions shall be shown and constructed per street improvement plans, in accordance with OC Public Works Standard Plans.
- 25. Local depressions and decks of curb inlets shall not be poured until adjacent curb and gutter has been poured.
- 26. If a driveway encroaches with a local depression transition, use OC Public Works Standard Plan 1308 Type A.
- 27. Whenever applicable, the developer shall obtain a permit for the State Department of Fish and game in accordance with Section 1602 of the California Fish and Game Code prior to commencement of construction.
- 28. The contractor shall conduct construction operations in such a manner that storm or other waters may proceed uninterrupted along their existing street or drainage courses.
- 29. In the course of water control, the contractor shall conduct construction operations to protect waters from pollution with fuels, oils, bitumen or harmful materials.